CHAPTER 11: MASTER REMOVAL SECTION

CONTENTS

1. Theory of Operation

1. Master Removal Unit Home Positioning Mechanism 1
2. Master on the Drum (before master removal) Check Mechanism 3
3. Clamp Plate Master Release Mechanism 5
4. Master Removal Mechanism 7
5. Disposed Master Compressing Mechanism 9
6. Master Disposal Box Set Mechanism 12

2. Removal and Assembly

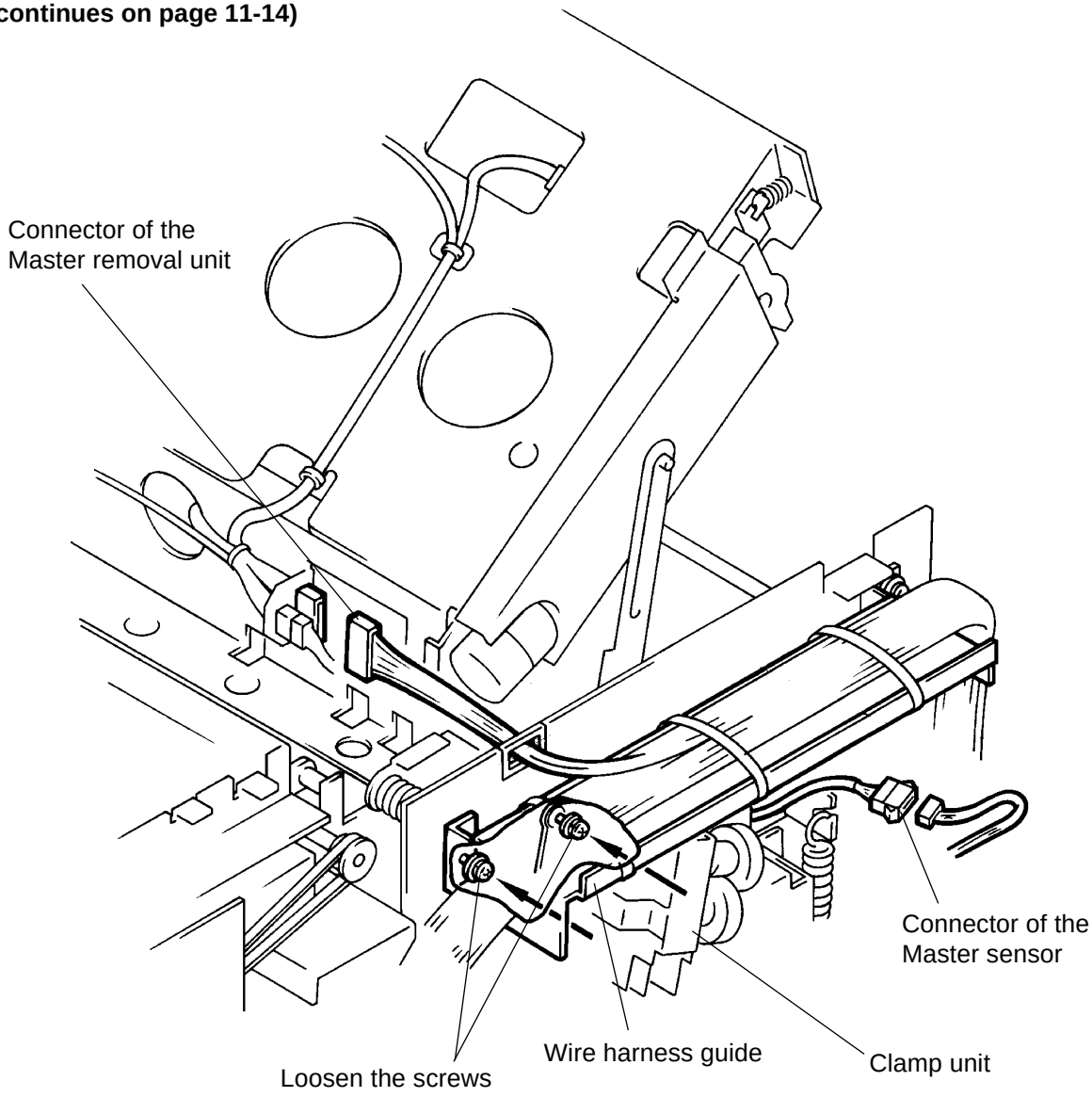
1. Master Removal Unit 13
2. Compressing Motor 15
3. Master Removal Motor 16
4. Master Removal Sensor 18
5. Master Full Det. Sensor 18
6. Master Compressing Sensor 18
7. Pulley Shaft 19
8. Vertical Transport Roller (up) 19
9. G-Belts on Vertical Transport Roller (up) 19
10. Master Removal Hook 20
11. Master Sensor 20
12. Vertical Transport Roller (down) 21
13. G-Belts on Vertical Transport Roller (down) 21
14. Master Compress Plate 22

2. Removal and Assembly

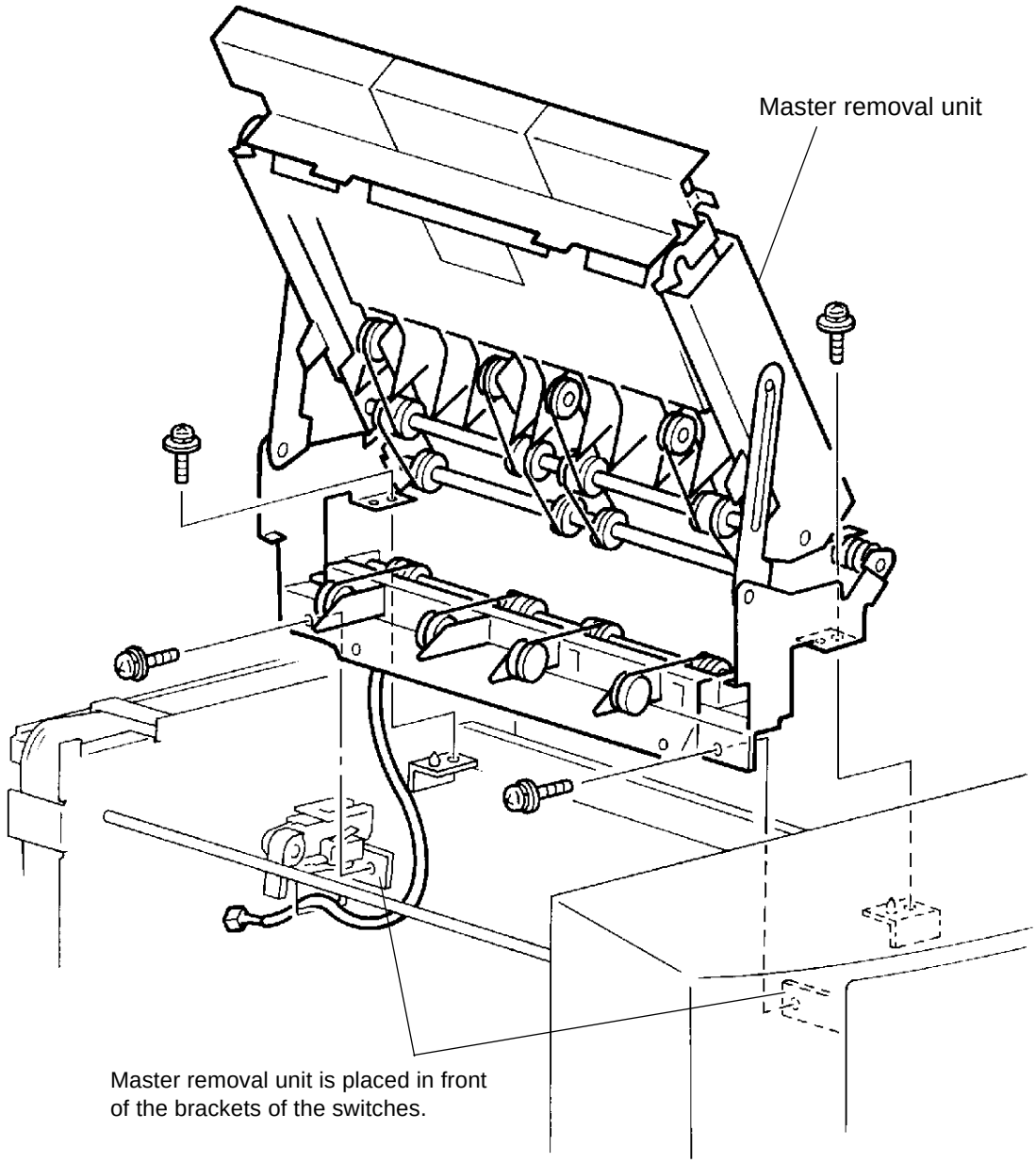
1. Master Removal Unit

1. Lower the Paper feed table.
2. Disconnect the power supply from the machine.
3. Remove following five covers from the machine.
   - Back cover
   - Master removal upper cover
   - Master removal lower cover
   - ADF unit cover
   - ADF cover
4. Open the Main PCB bracket frame.
5. Loosen two mounting screws, one on the left far end of the Wire harness guide and another on the top left corner of the Clamp unit, to prevent the Master removal unit from jamming on these screws during the removal.
6. Disconnect the Connectors of the Master removal unit and Master sensor.

(continues on page 11-14)



7. Remove four mounting screws of the Master removal unit.
8. Remove the Master removal unit by lifting it up.
   CAUTION: Be careful not to damage the Master sensor wire harness.



Precaution in Assembly

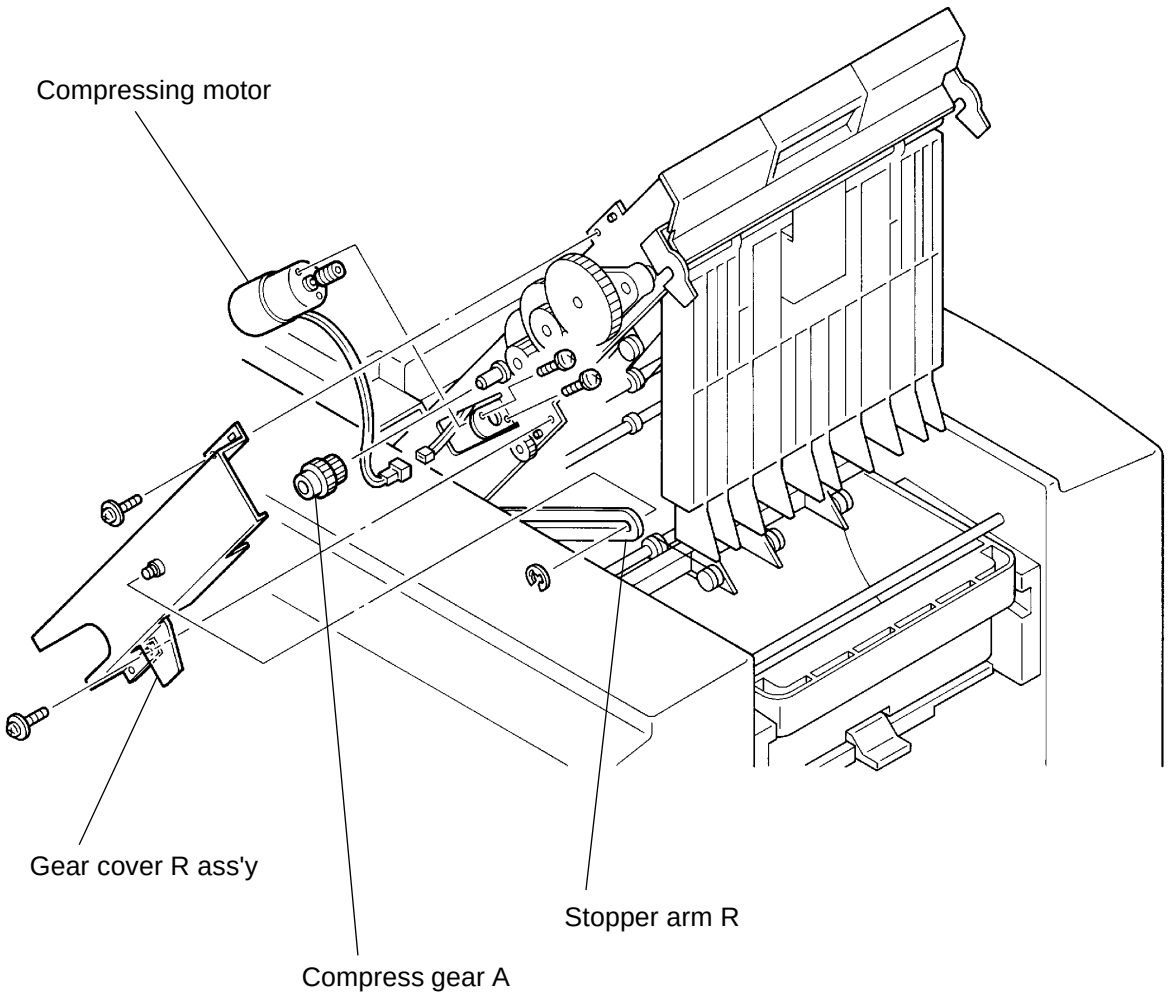
- The Master removal unit should be placed in front of the brackets of the Master removal unit safety switch and Disposal cover set switch. (refer to above illustration)
- Match the half-pierced sections on the master removal unit with their counter parts.

2. Compressing Motor

1. Disconnect the power supply from the machine.
2. Remove Master removal upper cover.
3. Remove E-ring from the Stopper arm R and remove the arm from the shaft.
4. Remove two mounting screws of the Gear cover R ass'y and remove the ass'y.
5. Remove Compress gear A.
6. Disconnect the Connector of the Compressing motor.
7. Remove two mounting screws of the Compressing motor and remove the motor.

Precaution in Assembly

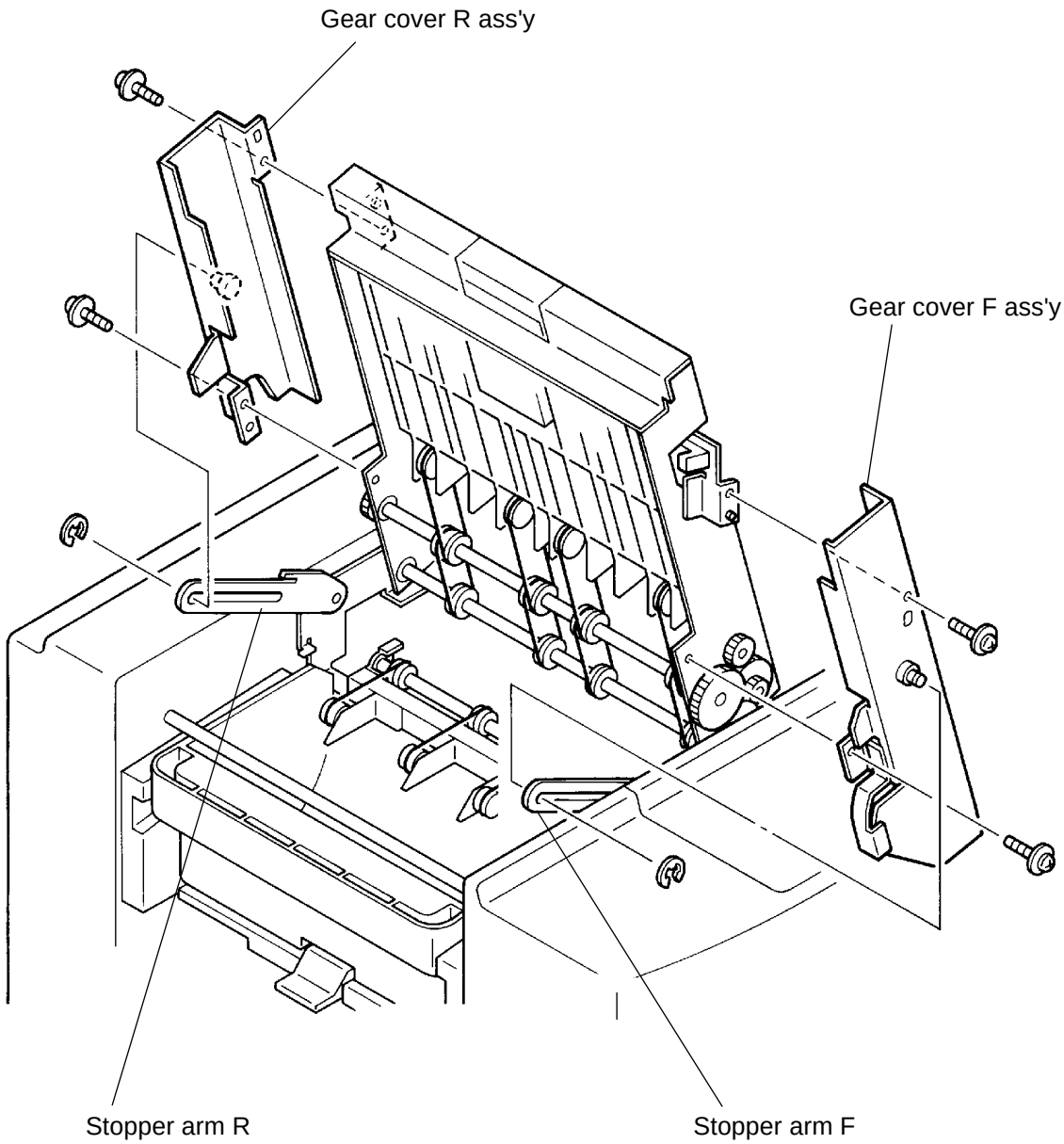
- Match the half-pierced section of Gear cover R ass'y with its counter part.



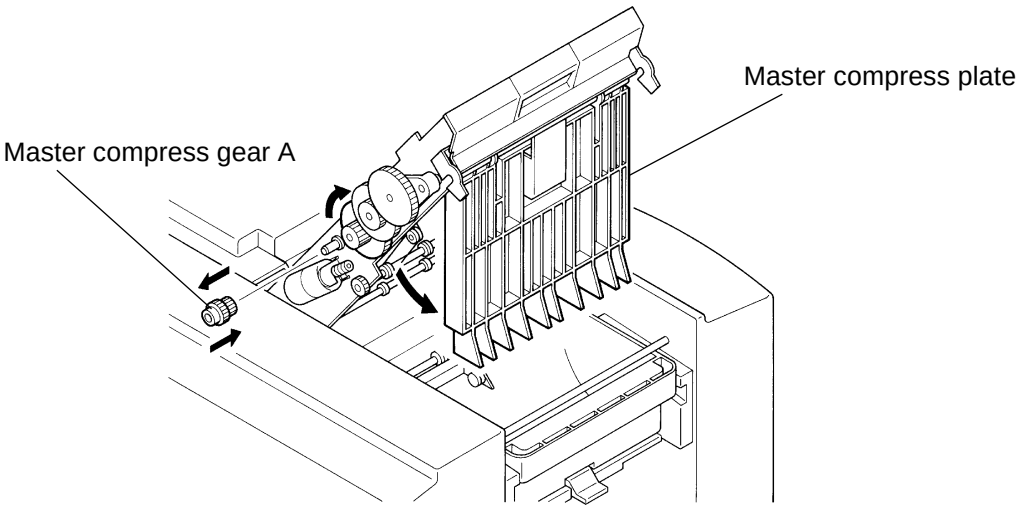
3. Master Removal Motor

1. Disconnect the power supply from the machine.
2. Remove Master removal upper cover.
3. Remove E-rings from Stopper arms F and R, and disengage both arms.
4. Remove mounting screws of Gear cover F and R ass'y, and remove both cover ass'y.

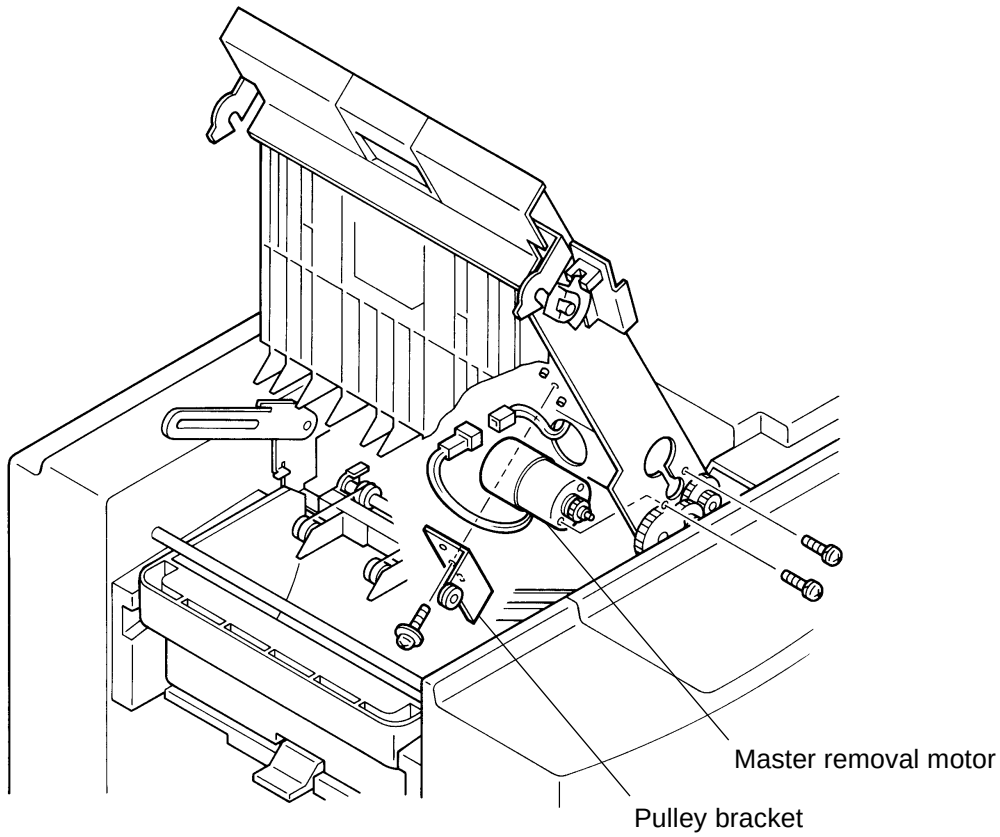
(continues on page 11-17)



5. Remove Master compress gear A.
6. Let the Master compress plate hang down, and install the Master compress gear A back.



7. Remove the mounting screw of the Pulley bracket on the Operation panel side and remove the bracket.
8. Disconnect the Connector of the Master removal motor.
9. Remove two mounting screws of the Master removal motor and remove the motor.



Precaution in Assembly

- Match the half-pierced section of the Pulley bracket with its counter part.
- Match the half-pierced sections of the Gear cover F and R ass'y with their counter parts.

4. Master Removal Sensor

1. Disconnect the power supply from the machine, and remove Master removal upper cover.
2. Remove E-rings from the Stopper arm F and R and disengage the two arms.
3. Disconnect the Connector of the Master removal sensor.
4. Remove the mounting screw of the Master removal sensor bracket and remove the bracket.
5. Remove the sensor from the bracket.

Precaution in Assembly

- Match the half-pierced section of the Master removal sensor bracket with its counter part.

5. Master Full Det. Sensor

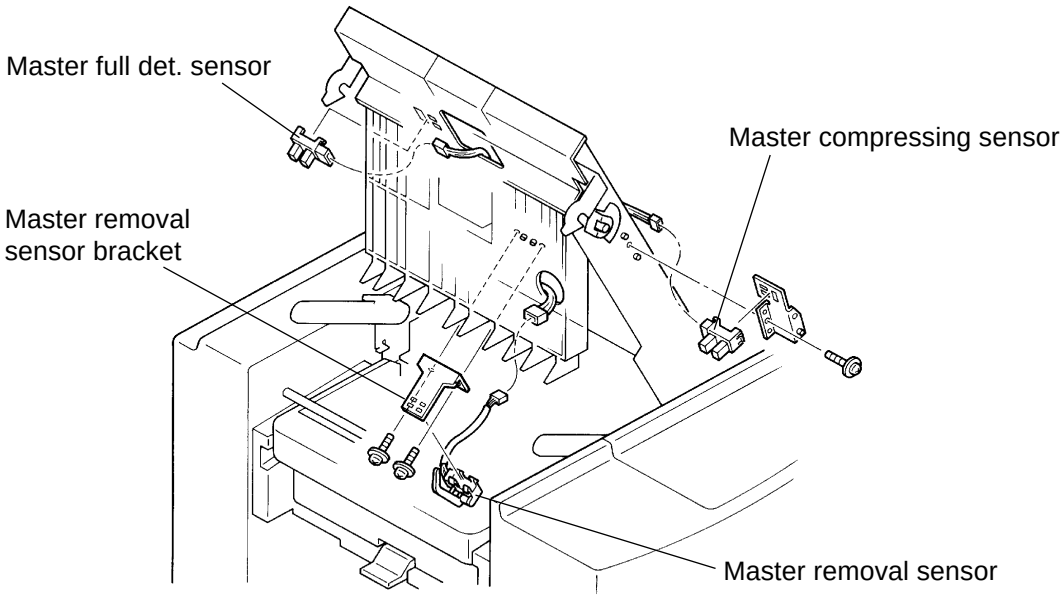
1. Disconnect the power supply from the machine, and remove Master removal upper cover.
2. Remove E-rings from the Stopper arm F and R and disengage the two arms.
3. Remove mounting screws from the Gear cover F and R ass'y and remove the two ass'y.
4. Remove Master compress gear A.
5. Let the Master compress plate hang down, and install the Master compress gear A back. (**Ref.: page 11-17**)
6. Disconnect the Connector of the Master full det. sensor and remove the sensor.

6. Master Compressing Sensor

1. Disconnect the power supply from the machine, and remove Master removal upper cover.
2. Remove E-rings from the Stopper arm F and R and disengage the two arms.
3. Remove two mounting screws of Gear cover F ass'y and remove the cover ass'y.
4. Disconnect the Connector of the Master compressing sensor.
5. Remove the mounting screw of the Master compressing sensor bracket and remove the bracket.
6. Remove the sensor from the bracket.

Precaution in Assembly

- Match the half-pierced section of the Master compressing sensor bracket with its counter part.



7. Pulley Shaft

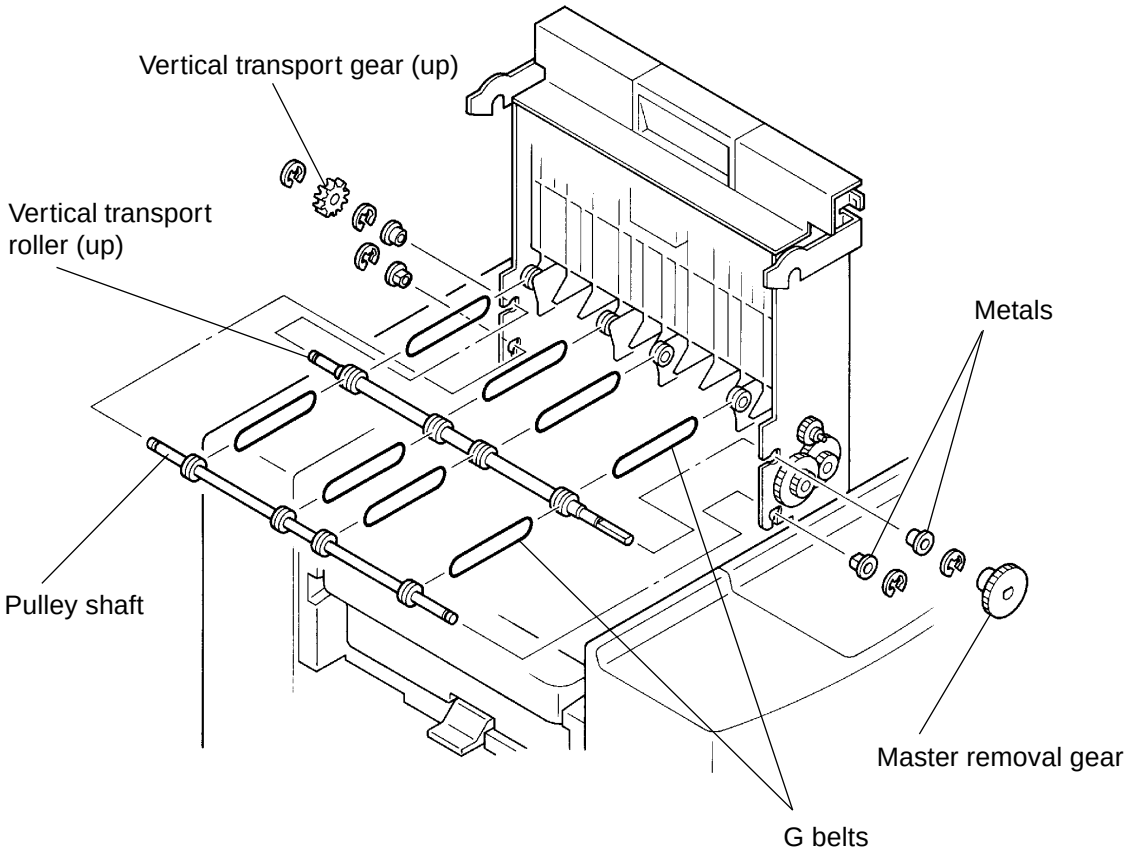
1. Disconnect the power supply from the machine.
2. Remove Master removal upper cover.
3. Remove Gear cover F ass'y and R ass'y. (page 11-16)
4. Remove E-rings from both ends of the Pulley shaft and remove the Metals.
5. Remove the Pulley shaft by disengaging it out through the G-Belts.

8. Vertical Transport Roller (up)

1. Disconnect the power supply from the machine.
2. Remove Master removal upper cover.
3. Remove Gear cover F ass'y and R ass'y. (pag 11-16)
4. Remove E-ring from the Vertical transport gear (up) and remove the gear.
5. Remove Master removal gear.
6. Remove E-rings from both ends of the Vertical transport roller (Up) and remove the Metals.
7. Remove the Vertical transport roller (up) by disengaging it out through the G-Belts.

9. G-Belts on Vertical Transport Roller (up)

1. Disconnect the power supply from the machine.
2. Remove Master removal upper cover.
3. Remove Gear cover F ass'y and R ass'y. (page 11-16)
4. Remove Pulley shaft.
5. Remove Vertical transport roller (up).
6. Remove the G-Belts form the machine.



10. Master Removal Hook

1. Remove Master removal unit. (page 11-13)
2. Remove mounting screws of the Master removal hooks and remove the hooks from the Master removal unit.

Precaution in Assembly

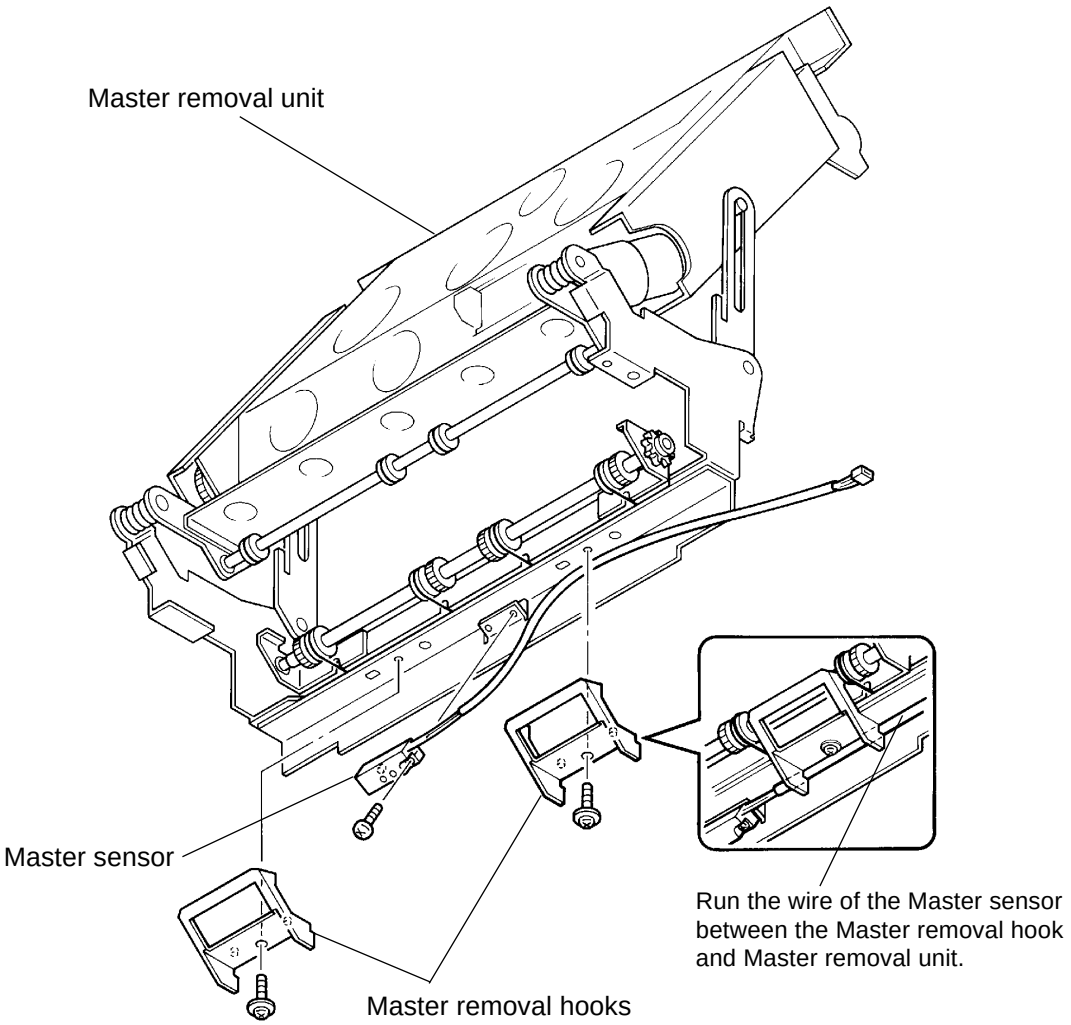
- Run the wires of the Master sensor as shown on the illustration.
- Match the half-pierced section of the Master removal hooks with the counter parts.

11. Master Sensor

1. Remove Master removal unit. (page 11-13)
2. Remove Master removal hooks. (page 11-20)
3. Remove the mounting screw of the Master sensor and remove the sensor.

Precaution in Assembly

- Run the wires of the Master sensor as explained and shown on the illustration below.
- Match the half-pierced section of the Master sensor with its counter part.

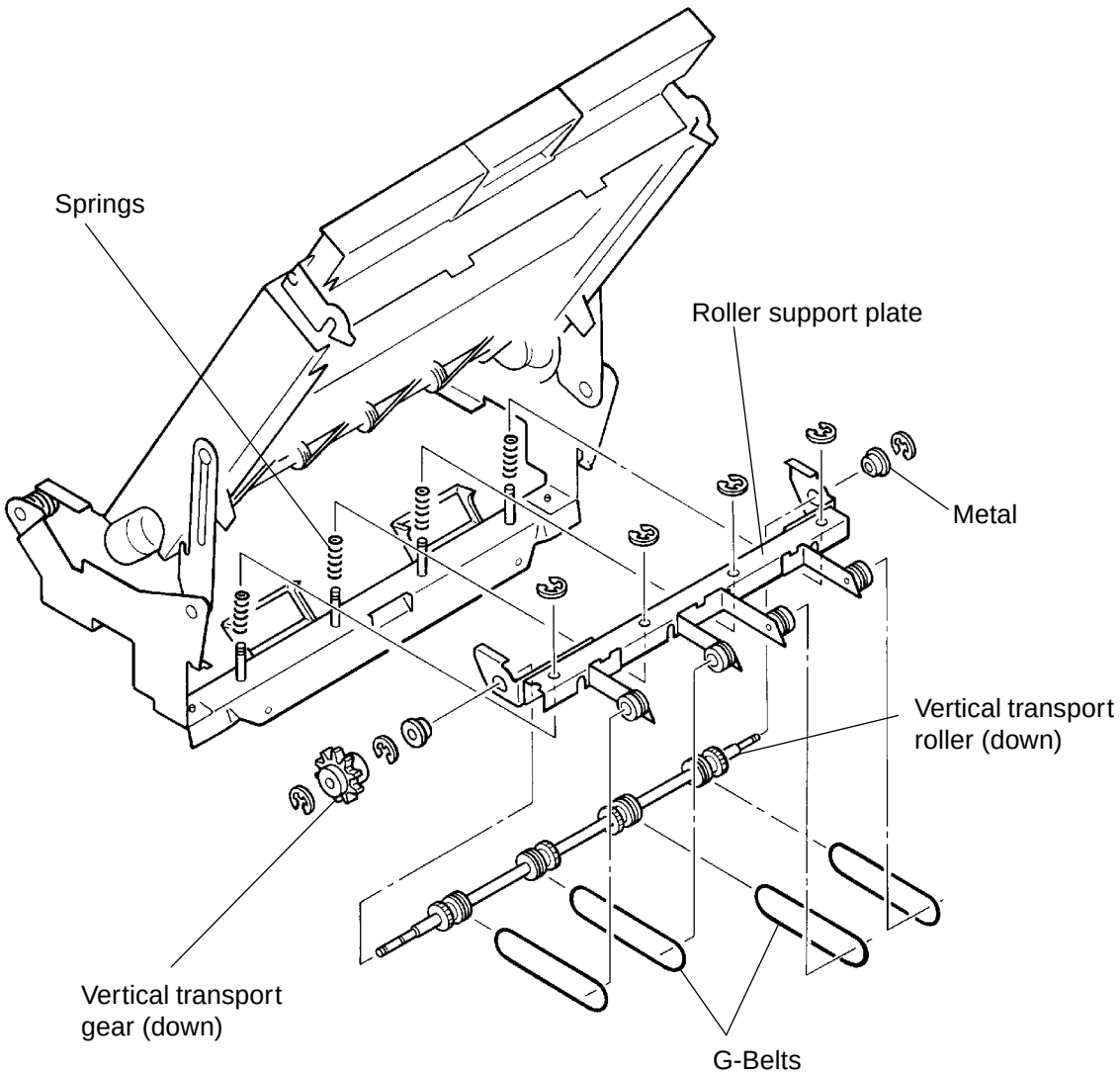

Master removal unit
Master sensor
Run the wire of the Master sensor between the Master removal hook and Master removal unit.
Master removal hooks

12. Vertical Transport Roller (down)

1. Remove Master removal unit. (page 11-13)
2. Remove E-ring from the gear on the Vertical transport roller (down) and remove the gear.
3. Remove E-rings from both ends of the Vertical transport roller (down) and remove the Metals.
4. Remove Vertical transport roller (down) by disengaging it out through the G-belts.

13. G-Belts on Vertical Transport Roller (down)

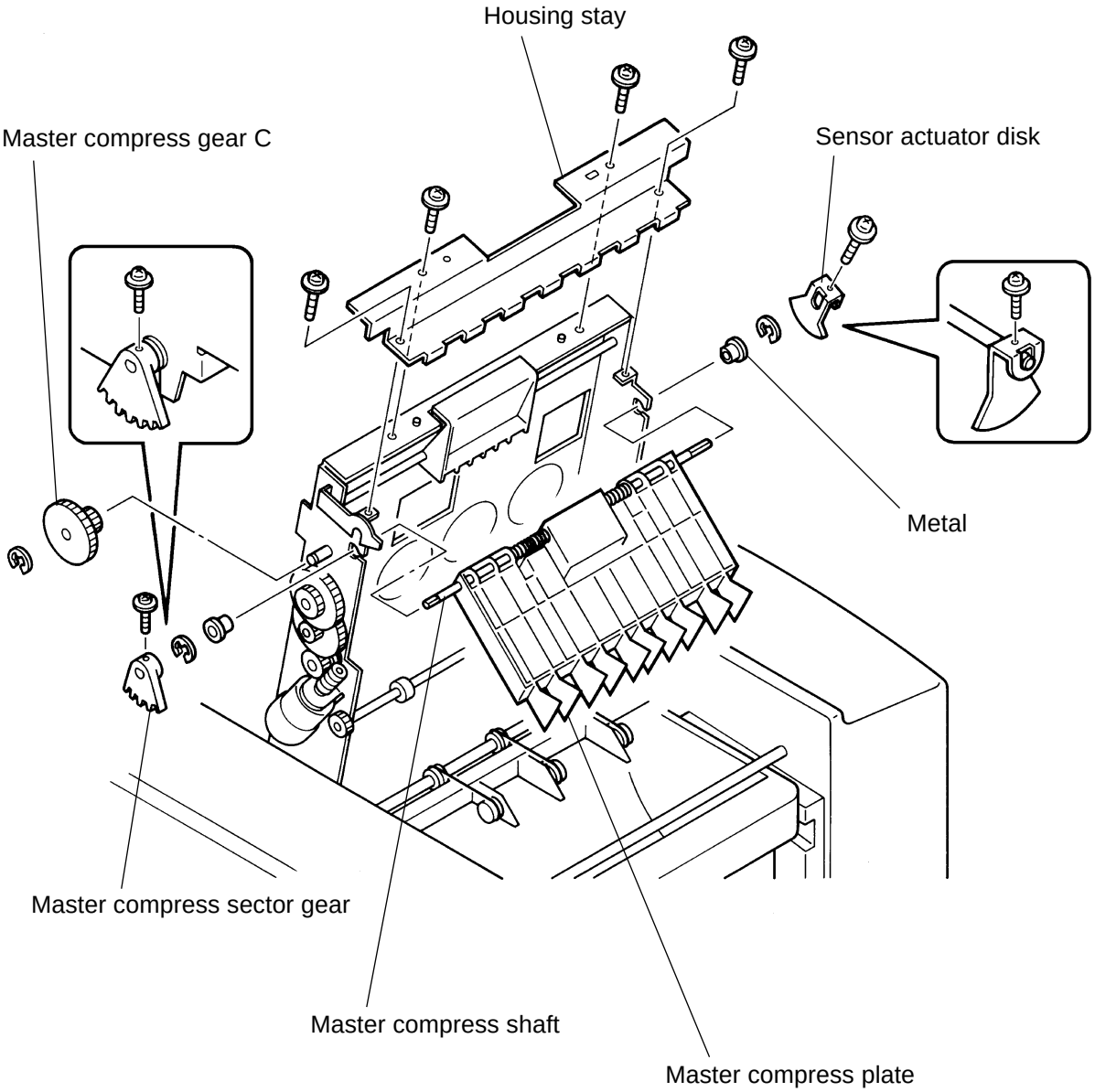
1. Remove Master removal unit. (pate 11-13)
2. Remove Vertical Transport Roller (down).
3. Remove four E-rings from the Roller support plate and remove the plate.
   CAUTION: Do not lose the four Springs.
4. Remove the G-Belts.



14. Master Compress Plate

1. Disconnect the power supply from the machine.
2. Remove Master removal upper cover.
3. Remove Gear cover F ass'y and R ass'y. (page 11-16)
4. Remove mounting screws of the Housing stay and remove the stay.
5. Remove the Master compress gear C and Master compress sector gear.
6. Remove the mounting screw of the Sensor actuator disk and remove the disk.
7. Remove E-rings from both ends of the Master compress shaft and remove the Metals.
8. Remove the Master compress shaft with the Master compress plate attached.

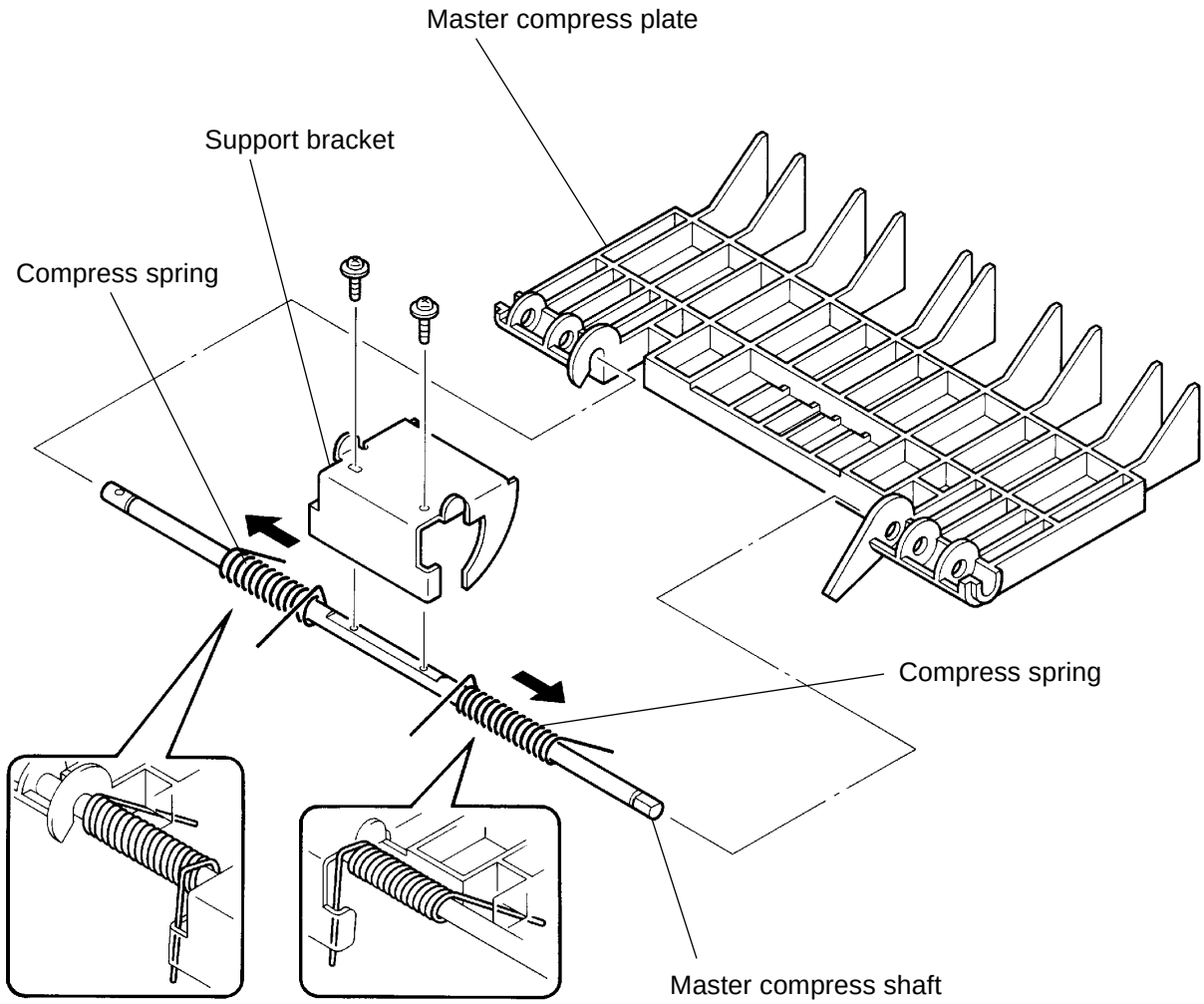
(continues on page 11-23)



9. Unlock Compress springs from the Support bracket.
   - **Be careful with the handling of the Compress springs to avoid injuries.**
10. Remove two mounting screws holding the Support bracket to the Master compress shaft, and separate the Support bracket from the shaft.
11. Remove Master compress shaft and Compress springs from the Master compress plate.

Precaution in Assembly

- **Be careful with the handling of the Compress springs to avoid injuries.**
- Install the Master compress shaft in the correct direction.
- Hook the Compress springs in the correct direction and position.



Hook the Compress springs in the correct direction and position.